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PROCEEDINGS
OF
THE ROYAL SOCIETY.

1836.

No. 26.

June 2, 1836.

DAVIES GILBERT, Esq., V.P., in the Chair.

A paper was read, entitled "Note relative to the supposed origin of the deficient rays in the Solar Spectrum; being an account of an experiment made at Edinburgh during the Annular Eclipse of May 15, 1836." By James D. Forbes, Esq., Professor of Natural Philosophy in the University of Edinburgh.

The observation that some of the rays of light, artificially produced, are absorbed by transmission through nitrous acid gas, had suggested to Sir David Brewster the idea that the dark spaces in the solar prismatic spectrum may, in like manner, be occasioned by the absorption of the deficient rays during their passage through the sun's atmosphere. It occurred to the author that the annular eclipse of the sun of the present year would afford him an opportunity of ascertaining whether any difference in the appearance of the spectrum could be detected when the light came from different parts of the solar disc, and had consequently traversed portions of the sun's atmosphere of very different thickness; and that accurate observations of this kind would put the hypothesis in question to a satisfactory test. The result of the experiment was that no such differences could be perceived; thus proving, as the author conceives, that the sun's atmosphere is in no way concerned with the production of the singular phenomenon of the existence of dark lines in the solar spectrum.

A paper was also read, entitled "On the connexion of the anterior columns of the Spinal Cord with the Cerebellum; illustrated by preparations of these parts in the Human subject, the Horse, and the Sheep." By Samuel Solly, Esq., Lecturer on Anatomy and Physiology at St. Thomas's Hospital, M.R.I., Fellow of the Royal Medical and Chirurgical Society, and Member of the Hunterian Society. Communicated by P. M. Roget, M.D., Sec. R.S.

The exact line of demarcation between the tracts of nervous matter, subservient to motion and to sensation, which compose the spinal cord, has not yet been clearly determined. The proofs which exist of a power residing in the cerebellum which regulates and controls the